IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A method of implementing a fast dynamic channel allocation call admission control for radio link reconfiguration in a wireless communication system, comprising:

a pre-code allocation process;

a signal-independent code allocation process, including:

checking the availability of a code set in the cell;

generating timeslot sequences for the available timeslots;

assigning a code set to the available timeslots in a timeslot sequence, wherein a successful assignment is a solution;

calculating the interference signal code power (ISCP) for each solution; and

selecting the solution having the lowest weighted ISCP as an optimal solution; and

a post-code allocation process.

2. (Original) The method according to claim 1, wherein the pre-code allocation process includes:

receiving a request message;

processing the request message; and

retrieving system information from a centralized database.

3. (Original) The method according to claim 2, wherein the processing step includes:

reading wireless transmit/receive unit (WTRU) measurements from the request message; and

reading WTRU coded composite transport channel information and dedicated channel information from the request message.

4. (Original) The method according to claim 2, wherein the retrieving step includes:

retrieving wireless transmit/receive unit (WTRU) capability information;

retrieving Node B measurements from the centralized database;

retrieving a list of available timeslots from the centralized database; and

retrieving a list of code sets from the centralized database.

5. (Original) The method according to claim 1, wherein the post-code allocation process includes:

updating wireless transmit/receive unit (WTRU) information in a centralized database; and

creating a response message.

6. (Original) The method according to claim 5, wherein the updating step includes recording new coded composite transport channel (CCTrCH) information and associated physical channel allocation information in the centralized database.

7. (Original) The method according to claim 5, wherein the creating step includes

adding power control information to the response message; and

adding physical channel allocation information to the response message.

8. (Original) A method of implementing fast dynamic channel allocation call admission control (CAC) for radio link reconfiguration in a wireless communication system, comprising the steps of:

receiving a radio link reconfiguration request message to initiate the CAC function;

processing the request message;

obtaining Node B measurements from a centralized database;

defining a local data structure to store measurement data;

retrieving a list of available timeslots and a list of code sets from the centralized database;

retrieving wireless transmit/receive unit (WTRU) capability information from the centralized database;

allocating the code sets to the available timeslots in a timeslot sequence;

updating the new WTRU information with new allocation information in the centralized database; and

sending a response message with the results of the code allocation process.

9. (Original) The method according to claim 8, wherein the processing step includes reading WTRU information, WTRU coded composite transport channel information, and dedicated channel information from the request message.

10. (Original) The method according to claim 8, wherein the processing step includes reading WTRU measurements from the request message.

11. (Original) The method according to claim 10, wherein the WTRU measurements include:

the downlink interference signal code power; and

the downlink primary common control physical channel received signal code power.

12. (Original) The method according to claim 8, wherein the retrieving step further includes reading Node B measurements from the centralized database.

13. (Original) The method according to claim 12, wherein the Node B measurements include:

common measurements, including uplink interference signal code power and downlink transmitted carrier power; and

dedicated measurements, including downlink transmitted code power.

14. (Original) The method according to claim 8, wherein the local data structure includes a list of cell measurement records.

15. (Original) The method according to claim 14, wherein a cell measurement record includes:

a cell identification; and

a list of timeslot measurement records.

16. (Original) The method according to claim 15, wherein a timeslot measurement record includes:

a timeslot number;

a timeslot interference signal code power (ISCP);

a timeslot carrier power; and

a list of code measurement records.

17. (Original) The method according to claim 16, wherein a code measurement record includes:

a WTRU identification; and

a radio link identification;

a dedicated physical channel (DPCH) identification; and

a code transmitted power.

18. (Original) The method according to claim 8, wherein the WTRU capability information includes:

uplink WTRU capability information, including:

the maximum number of timeslots per frame; and

the maximum number of uplink physical channels per timeslot; and

downlink WTRU capability information, including:

the maximum number of timeslots per frame; and

the maximum number of downlink physical channels per frame.

19. (Original) The method according to claim 8, wherein the allocating step includes:

checking the availability of a code in the cell;

generating timeslot sequences from the list of available timeslots; and

assigning a code set to a timeslot sequence to find a solution, wherein a successful assignment is a solution.

20. (Original) The method according to claim 19, wherein the allocating step further includes:

calculating an interference signal code power (ISCP) value for the solution; and

selecting the solution having the lowest weighted ISCP value as an optimal solution.

21. (Original) The method according to claim 8, wherein the updating step includes:

recording coded composite transport channel (CCTrCH) information in the centralized database;

recording new physical channel allocation information in the centralized database; and

updating code vector information in the centralized database.

22. (Original) The method according to claim 21, wherein the CCTrCH information includes:

a CCTrCH identification;

a CCTrCH status;

a CCTrCH signal to interference ratio target;

a guaranteed data rate;

an allowed data rate; and

the dedicated physical channel (DPCH) information.

23. (Original) The method according to claim 22, wherein the DPCH information includes:

a list of DPCH timeslot information;

a repetition period value; and

a repetition length value.

24. (Original) The method according to claim 23, wherein the DPCH timeslot information includes:

a timeslot number;

a midamble shift and burst type;

a transport format combination indicator presence; and

code information.

25. (Original) The method according to claim 24, wherein the code information includes:

a channelization code;

a code usage status;

dedicated physical channel identification; and

a code signal to interference target.

26. (Original) The method according to claim 21, wherein the code vector information includes:

an uplink code vector information, including:

a code identification;

a code block indication;

a code usage status; and

a downlink code vector information, including:

a code identification; and

a code usage status.

27. (Original) The method according to claim 8, wherein the sending step includes filling the response message with power control information and physical channel allocation information.

28. (Original) The method according to claim 27, wherein the power control information includes:

an initial downlink (DL) transmission power;

a maximum DL transmission power;

a minimum DL transmission power;

a maximum uplink (UL) SIR; and

a minimum UL SIR.

29. (Original) The method according to claim 27, wherein the physical channel information includes:

the dedicated physical channel (DPCH) information;

a repetition period value, and

a repetition length value.

30. (Original) The method according to claim 29, wherein the DPCH information includes DPCH timeslot information.

31. (Original) The method according to claim 30, wherein the DPCH timeslot information includes:

the timeslot number;

the midamble shift and burst type;

the transport format combination indicator presence; and

a list of code information.

32. (Original) The method according to claim 31, wherein the code information includes:

the DPCH identification; and

the channelization code.